

KINGDOM OF SAUDI ARABIA  
Ministry of Education  
KING FAISAL UNIVERSITY  
(037)



المملكة العربية السعودية  
وزارة التعليم  
جامعة الملك فيصل  
(٠٣٧)

**COLLEGE OF ENGINEERING  
STRATEGIC PLAN  
2020-2024**





## Preface

The College of Engineering has developed a strategic plan for the years 2020-24, encompassing its vision, mission, core values, and goals. Aligned with the university's identity and Saudi Arabia's requirements, this plan was meticulously developed through a collaborative and data-driven process, gathering input from diverse stakeholders, including faculty, staff, students, alumni, and industrial partners.

The plan outlines five strategic objectives, guiding the College's actions across research, education, community engagement, and partnerships. It also establishes key performance indicators and metrics to gauge the progress and impact of these efforts.

The plan is not a static document but a dynamic and adaptive framework that will be reviewed and revised annually to ensure its relevance and effectiveness. It signifies the College's unwavering commitment to excellence, innovation, diversity, inclusion, collaboration, and service. Serving as a roadmap for the College's future, it envisions a better world through engineering.

Appreciation goes to the University's leadership, particularly His Excellency the President, Dr. Muhammad bin Abdul Aziz Al Ohali, and the four Vice Presidents responsible for Academic Affairs, Graduate Studies and Scientific Research, Development and Community Service, and Student Affairs. Their invaluable support and guidance have been instrumental in shaping the College's strategic plan. Gratitude also extends to the university's strategic planning supervisor and consultants for their assistance and advice throughout the process. Kudos to the College's Strategic Planning Committee, department chairs, working committees, and faculty members in the College of Engineering for their unwavering dedication and hard work in developing this plan.

**Dean of the College of Engineering  
Dr. Adel Aldalbahi**



## Introduction

The College of Engineering is dedicated to delivering high-quality education and training that align with the demands of the labor market and international accreditation standards. To achieve this, the College has devised comprehensive curricula that include hands-on training within prominent local enterprises, adhering to the guidelines set forth by the Accreditation Board for Engineering and Technology (ABET) and the National Commission for Academic Accreditation and Assessment (NCAAA).

Offering a diverse range of academic programs, including bachelor's and master's degrees across various engineering disciplines such as civil, mechanical, electrical, chemical, and biomedical engineering, the College endeavors to equip its students with the essential skills, knowledge, and competencies required to excel as engineers and leaders in their respective fields.

Moreover, the College has formulated a strategic plan that derives its objectives from the university's vision and values, aimed at addressing pivotal issues impacting its performance and excellence. This strategic plan is informed by surveys, analyses, and insights from both internal and external stakeholders, identifying key areas that necessitate attention. Comprising five strategic objectives and encompassing eighteen projects, this plan is dynamic, subject to annual review and updates to stay aligned with the evolving needs and challenges faced by the College and its stakeholders.

The College and the university share a unified vision centered around excellence and influence in engineering education, research, and service. In support of the university's objectives, the College leverages its expertise to provide engineering solutions to local and global issues, produce engineering graduates who are not only competent but also ethical professionals, and cultivate a culture of innovation and collaboration among faculty, staff, students, and industrial partners.



As the College of Engineering seeks to improve academically and expand its role as an institution, it recognizes the importance of having a roadmap. This roadmap consists of the college's vision, mission, values, and priorities. They serve as the sturdy foundation for all its future endeavors. In the upcoming sections, we'll explore the College of Engineering's vision, mission, values, and priorities, delving into the core of its purpose and the plan that shapes its operations.

### **Vision**

A commitment to excellence in engineering education, scientific research, and engineering partnerships at all local and regional levels.

### **Mission**

Contribute to sustainable development and excellence in preparing graduates to be distinguished engineers through quality education, excellence in scientific research, community service, innovation, and entrepreneurship.

### **Values**

- Responsible citizen.
- Integration based on interdisciplinarity.
- Innovation in originality, producibility, and applicability of knowledge.
- Respect for ideas, opinions, and diversity.
- Equality that enhances transparency and belonging.
- Employing expertise and capabilities.

### **Priorities**

- Education and learning
- Scientific Research
- Undergraduate student experience
- Develop industrial and local partnerships

- Innovation, Investment, and Entrepreneurship

## Strategic Plan

The goal of this strategic plan for a College of Engineering is to create a well-organized and forward-looking framework that helps the college play its part in achieving the university's overall objectives, with a particular focus on the College of Engineering. The College of Engineering has outlined five strategic goals, from which a total of eighteen projects have originated and are distributed across these five goals. The five goals are as follow:

1. Enhancing academic programs and elevating academic practices within the College of Engineering.
2. Advancing and nurturing scientific research within the college.
3. Enhancing the student's university experience.
4. Enhancing industrial connections and fostering community partnerships.
5. Promoting innovation, investment, and entrepreneurship.

### First Strategic Goal:

In pursuit of our initial strategic objective, titled "Enhancing academic programs and elevating academic practices within the College of Engineering," the College will focus on executing the following projects:

**Project No (1-1) Develop all college programs in adherence to quality standards, practices, and accreditation requirements, ensuring alignment with labor market demands.**

The objective of this project is to enhance all engineering programs within the College in accordance with accreditation standards and practices approved by relevant bodies, while also aligning them with labor market demands.



### Project Activities

- Pursuing ABET International Accreditation for Engineering Programs.
- Revising study plans for all current engineering programs to align with accreditation agency standards and cater to labor market requirements.
- Formulating academic procedures following quality benchmarks set by accreditation agencies.
- Ongoing assessment and evaluation.

### Project No (1-2) Introducing new programs designed to address labor market requirements.

The objective of this project is to create new engineering programs at both the bachelor's and master's levels that cater to the demands of the labor market.

### Project activities

- Conducting surveys to understand the labor market's requirements.
- Attracting and retaining highly qualified faculty members.
- Introducing new bachelor programs designed to align with labor market demands.
- Developing master's programs tailored to meet the labor market's needs.
- Establishing professional diploma programs that address the specific requirements of the labor market.

### Project No (1-3) Professional development for faculty, staff, and scholarship students.

This project is focused on advancing the professional growth of faculty members, staff, and scholarship students.

### Project activities

- Organizing professional development programs for faculty, staff, and scholarship recipients.
- Executing the strategic recruitment plan.
- Assessing faculty members' teaching performance through peer evaluations.



- Hosting academic conferences and gatherings.
- Ongoing assessment and review processes.

#### **Project No (1-4) Development of the educational laboratories.**

The project seeks to enhance all laboratories within the Faculty of Educational Engineering as a key facet of the faculty's scientific programs.

#### **Project activities**

- Evaluation of the present status of the College's educational laboratories.
- Undertaking benchmarking and pinpointing areas for effective improvement.
- Enacting a development plan for educational laboratories based on the completed studies.
- Ongoing assessment and review.

#### **Project No (1-5) Raising the academic level of students.**

The project aims to enhance the academic achievements of College of Engineering students and bolster their academic journeys.

#### **Project activities**

1. Conducting a study to identify the root causes of academic underachievement and devising strategies for improvement, mainly focused on enhancing the graduation rates of first-year students.
2. Executing a comprehensive plan to enhance student completion rates at various academic levels.
3. Enhancing the College's academic advising procedures.
4. Activating the services offered by the College's student teaching center.



### **Second strategic Goal:**

In pursuit of our second strategic objective, labeled "Advancing and nurturing scientific research within the college," the College will focus on executing the subsequent projects:

#### **Project No (2-1): Directing the scientific research to serve the national goals and the aspirations of the university's identity.**

This project aims to encourage faculty members to produce research that aligns with both the interests of society and the identity of the university.

#### **Project activities**

1. Fostering scientific research endeavors that address the university's vision and identity matters.
2. Participating in academic conferences, both internal and external, that pertain to the university's identity.
3. Enhancing research collaborations with external entities that align with the university's aspirations and identity.

#### **Project No (2-2): Improving and enriching the research outputs.**

This project revolves around overseeing the research activities of faculty members and improving the volume of scientific research conducted within the College.

#### **Project activities**

1. Establishing a system for tracking the scientific publications of every faculty member.
2. Ongoing enhancement of the ratio of scientific publications in top-tier journals.
3. Enhancing the research capabilities of faculty members.
4. Developing the research skills of students.





**Project No (2-3): Attracting funding sources to support research projects and laboratories.**

The objective of this project is to boost and make the most of opportunities for scientific research support.

**Project activities**

1. Optimizing the utilization of external funding opportunities to bolster scientific research beyond the College.
2. Developing specialized research laboratories.
3. Establishing research collaborations with external partners.

**Third strategic Goal:**

In pursuit of our third strategic objective, which is "Enhancing the student's university experience," the College will embark on executing the following projects:

**Project No (3-1): Providing various extracurricular activities and programs for students.**

Engaging in diverse extracurricular student activities designed to foster comprehensive student development and nurture their personal growth.

**Project activities**

- Offering programs to identify and nurture students' talents.
- Implementing a schedule for extracurricular student activities.
- Promoting and facilitating student engagement in extracurricular activities and initiatives.

**Project No (3-2): Development of the student clubs.**

The goal of this project is to formulate a practical strategy to invigorate the role of voluntary clubs in shaping proactive students who actively engage with their communities, enhancing their skills, and solidifying their sense of social responsibility.



### Project activities

- Identifying suggested areas for growth and improvement.
- Executing a student club development plan based on the proposed enhancement ideas.
- Backing student-led community initiatives.
- Enhancing student services.
- Continuous evaluation of the performance of student clubs.

### Project No (3-3): Development of the participation in student activities.

The objective of this project is to empower students to actively engage in local, regional, and global scientific and community initiatives. It involves facilitating students' safe and seamless utilization of college facilities for these purposes, promoting their development of skills and social responsibility.

### Project activities

1. Strengthening student engagement in training programs.
2. Expanding student involvement in university-level professional certificate programs.
3. Assessing student submissions or contributions.

### Fourth Strategic Goal:

In pursuit of our fourth strategic objective, labeled "Enhancing industrial connections and fostering community partnerships," the College will focus on executing the following projects:

### Project No (4-1): Marketing and introducing the College and its specializations.

The project aims to establish and enhance the College's reputation among diverse government and industrial sectors, thereby facilitating collaboration in various academic, research, and other College activities.



### Project activities

- Delivering scientific and practical services to the community and diverse public and private sectors via accessible media channels.
- Arranging and conducting both general and specialized training courses and lectures for the broader community.
- Elevating the College's involvement in pertinent forums and gatherings.

### Project No (4-2): Contracting industrial partnerships.

This aspect focuses on establishing effective communication channels with the industrial sector to support a range of academic, research, and other activities within the College.

### Project activities

- Revitalizing current partnerships.
- Identifying specific areas and potential collaboration partners.
- Formulating fresh partnership agreements.

### Project No (4-3): Expanding the scope of the community partnership system.

The project seeks to broaden the community partnership framework and encourage volunteer engagement.

### Project activities

- Promoting engagement in volunteer activities.
- Representing the College at community events.
- Coordinating events that benefit the community.
- Reinvigorating communication with college alumni.



**Project No (4-4): Building partnership with Al Ahsa Development Authority.**

This project concerns a strategic partnership contract between the College of Engineering at King Faisal University and the Al-Ahsa Development Authority.

**Project activities**

- Bilateral meetings.
- Identifying collaboration areas.
- Formalizing the partnership agreement.
- Implementing the partnership contract.

**Fifth Strategic Goal:**

In pursuit of our fifth strategic objective, titled "Promoting innovation, investment, and entrepreneurship," the College will focus on executing the following projects:

**Project No (5-1): Supporting innovative research and student projects that can be commercialized.**

The project's objective is to support faculty and student projects characterized by innovation and commercial potential, aligning with the university's identity, with the aim of fostering investment and entrepreneurship.

**Project activities**

- Identifying the challenges related to transforming projects into marketable products.
- Creating and executing a strategy to inspire faculty members and students to partake in innovative projects with commercialization potential.
- Enacting the recommended promotional plan.

**Project No (5-2): Marketing the College's research laboratories and capabilities.**

This project aims to market the research capabilities of faculty members and laboratories in order to encourage investment.



#### **Project activities**

- Developing a webpage on the College's website to showcase the College's research capacities.
- Obtaining accreditation for the college laboratories from the appropriate technical authorities.
- Offering research services to external stakeholders.

#### **Project No (5-3): Providing consulting and advisory services to the industrial sector and individuals.**

The objective of this project is to offer developmental and advisory services tailored for the industrial sector and individuals to promote investment.

#### **Project activities**

- Conducting workshops for faculty members to explore the process of developing and delivering services to both the private sector and individuals.
- Offering skill-building training programs for the industrial sector and individuals.
- Delivering consultation services to the industrial sector and individuals.